

OF THE

ARTIFICIAL MINERAL WATERS,

PREPARED BY

F. H. HECKING,

Practical Chemist.

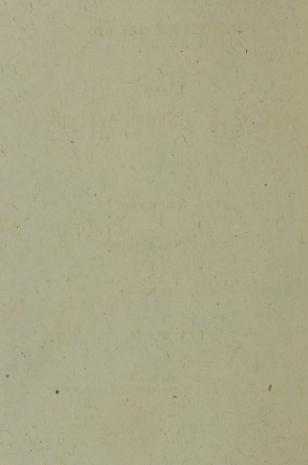
Together with an Exposition

of their

Properties and Effects,

NEW YORK,

Printed by Nicholas Muller, 48 Beekman Street, 1 8 6 3.



DIRECTIONS FOR THE USE

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443 LIBRARY

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DIRECTIONS FOR THE USE

RTIFICIAL MINERAL WATERS,

Entered according to Act of Congress,
by F. H. Hecking,
in the Clerk's office of the Dist. Court for the S'th'n Dis. of N. Y.
April, 1863.

Contemporaneously with the onward march of Science, penetrating the inmost recesses of nature and analyzing her most mysterious operations, we have been rendered more and more independent of her, and capable of acting to her not only as co-laborers, but occasionally as rivals. By the discovery of the chemical composition of Nature's Medicinal Mineral Waters, and the consequent production of equally efficient and valuable artificial preparations, Science has rendered to humanity a boon deserving of extreme appreciation.

Prompted by multitudinous requests, I undertook to imitate artificially a limited number of the most valuable curative Mineral Springs of Europe in accordance with the most accurate analyses by Berzelius, Bauer, Struve and other emin-

ent European chemists.

It is universally acknowledged, that for a considerable time past the most celebrated medical authorities of all countries have recognized Mineral Waters, both natural and artificial, as one of the most prominent curative agencies; for practical experience repeatedly and contsantly demonstrates their efficiency, even in cases where

the entire catalogue of remedial appliances has

been exhausted without success.

The preference is certainly to be given to Mineral Waters quaffed from the bosom of Nature, as the journey to a watering-place, a change of air, and exercise, combined with a total emancipation from business pursuits, form valuable subsidiaries to a cure; but only few persons are enabled to leave their domestic sphere for even a short time.

There has been but one opinion among the public concerning the natural Mineral Waters hitherto imported into this country; viz:—their entire worthlessness, as they generally arrive in a state

of putrid decomposition.

Moreover there are advantageous features connected with the use of artificial Mineral Waters, which do not exist with the natural Waters:—

1) The artificial Waters prepared by me, can be obtained at any season in a pure and unchanged condition, and possessing the same invariable composition, instead of being subjected to fluctuations like the natural Waters.

2) A cure can be effected by means of these Waters, without involving the loss of time, trouble and expense, which are the inevitable attendants

of a long and tedious journey.

3) The peculiar advantages of different Medical Springs, separated by great distances, can thus be enjoyed simultaneously, or, as the nature of the case may be, in rapid succession.

4) The artificial Waters possess the additional preference of enabling the patients to continue under the treatment of their family physicians, who are necessarily most intimately acquainted with the peculiarities of their diseases.

For the benefit of those who do not avail themselves of the services of a physician, I shall

advance a few general rules:-

The best season for the use of Mineral Waters are the months from May to September, a season replete with animation in nature and reacting with an animating effect on all beings,—although some diseases require the application of the Waters also in Winter. A well-regulated and strict course of life is requisite during the time alloted for a cure (say 4 to 6 weeks); quiescence and cheerfulness of mind are important aids. Exercise in the open air in the morning, in connection with the use of the Waters, is an essential condition of a successful cure.

Patients that use the Waters with a view to a cooling, aperient and solving action, require chiefly vegetable food; while animal food should be used by those in want of vigor and energy. Smoked, corned and pickled meats, fatty, acid, flatulent and strongly-spiced food, acidulous and frigorific fruit, stimulating beverages, acid and alcoholic wines, are things that should be sedulously avoided.

This careful diet is to be observed not only during the use of the Waters, but for some time

subsequent.

The best method is, to take the Waters early in the morning, while fasting; beginning with 1 pint, and increasing the dose gradually, according to individual desire, to 2—3 pints. They should be taken at intervals (a tumblerful every 10 or 15 minutes); during which time the body should be in motion, to facilitate the action of the Waters.

Persons of an excitable temperament may partake of a slight lunch before taking the Waters. If the cold liquid does not agree with the stomach, it should be mixed with some warm milk, or it may be slightly heated by placing the stoppered bottle in hot water.

The waters of Karlsbad and Ems being naturally hot, they should be used hot. For this purpose, I have doubled the quantity of solid matter naturally contained in these Waters, with the intention of having one half of a tumbler filled from the bottle, the rest being supplied by hot water, and the mixture taken as hot as possible.

Persons that are able to bear a stronger preparation, may heat the Waters without any dilution

by placing the bottle in hot water.

In reference to the subjoined analyses of Mineral Waters, I should state, that the solid matter therein contained is expressed in grains $\binom{6}{60}$ of a dram) to one pound (16 ounces) of the liquid.

Karlsbader Sprudel und Theresienbrunnen.

ALKALINE SPRINGS, IN BOHEMIA, AUSTRIA.

These springs are highly remarkable for their wonderful effects, due to the proportion of sulphate of soda they contain. They stand preeminent among the permeant and solvent waters, as they affect the composition of the fluids in the system, and disintegrate that of the solid parts.

Uses. These waters are beneficial for abdominal obstructions, especially of the liver, the aortal system, the milt, the uterus, the glandular and lymphatic systems; also for a morbid constitution of the fluids, obstructed hemorrhoids, gravel and gout. For hypochondria and melancholy. For impaired digestion, if not the effect of disordered nerves; constipation, irregular excretions and chronic diarrhea, if the result of defective digestion. For obstructions of the uterine system, chlorosis, sterility. For oppressive sensations in the pit of the stomach, if resulting from abdominal obstructions. Scurvy. Diseases of the urinary organs, gravel, gout, chronic nervous affections. Cataract, as a consesequence of obstructions. Chronic cutaneous diseases.

Counter-indications. — These waters should be avoided in cases of plethora and excitability of the arterial system, congestive and abortive dispositions, pulmonary diseases (phthisis, tuberculosity), heart-diseases, cancer, marine scurvy, chronic periodic vomit, if not the consequence of gravel or obstructions of the aortal system.

Directions. — Take 1—2 pints in the morning, increasing the dose until several stools occur daily. For abdominal obstructions and constipation the water may be applied also in the form of injections. Special caution is requisite in regard to the diet. After-dinner naps are strictly inadmissible; whereas gentle exercise before and after meals are conducive.

These springs being hot, I refer to the pre-

viously-stated rules.

Karlsbader Sprudel. Karlsbader Thereffenbrunnen.

| ASDERIE DELICHE DECEMBER SE | TO A PETER STATE OF THE | THE RESERVE OF THE PARTY OF THE |
|-----------------------------|-------------------------|--|
| (Berzelius.) | (Steinmann & | Reuss.) |
| Sulphate of Soda | 19,869 | 15,730 |
| Chlorid of Sodium | 7,975 | 7,780 |
| Carbonate of Soda | 9,695 | 8,869 |
| " Mangnesia | . 1,369 | Brade Marie |
| " Lime | 2,370 | 4,440 |
| " Strontia | 0,007 | 345-32-234E |
| " Maganese | . 0,006 | STEEL STATE |
| " Sesquioxid | Iron 0,027 | 0,016 |
| Phosphate of Alumina | . 0,001 | Year Street |
| Lime | . 0,002 | 30 8 25 8 TA 8 3 |
| Fluorid of Calcium | . 0,024 | 939387138 |
| Silicic Acid | . 0,577 | 0,466 |
| Temp 59 R. | Temp.48- | |
| | | |

Marienbader Kreuzbrunnen.

ALKALINE SPRINGS IN BOHEMIA, AUSTRIA.

These waters are remarkable for a great proportion of solid matter, and are, in consequence, one of the richest waters we possess. In their effects as well as their composition, they resemble those of Karlsbad; wherefore they have frequently been designated as the "cold Karlsbad"; however, they are less exciting and penetrating and are not so readily absorbed by weak digestive organs.

Uses. — These waters act chiefly on the digestive apparatus, the urinary organs, the kidneys and the liver; they stimulate the liver and, in connection with the same, the aortal system, the lymphatic system, the epidermis and the excretionary functions; they act as solvents and

aperients.

Counter-indications. — They may exercise injurious secondary influences in extreme general or local debility of the digestive organs, especially when there exists simultaneously a dropsical disposition or mucous secretions of the genital organs; in tuberculosity, in decidedly developed consumption, induration of glands, syphilis and chlorosis, in case the latter is consequent upon mere debility.

Directions. — The same rules are to be observed for these waters as for the Karlsbad, ex-

cepting the fact, that these are used cold.

Marienbader Reugbrunnen. (Berzelius).

| Sulphate of Soda | 38,115 |
|----------------------|---------|
| Chlorid of Sodium | 13,563 |
| Carbonate of Soda | 7,133 |
| " Lithia | 0,114 |
| " Magnesia | 2,718 |
| " Lime | 3,934 |
| " Strontia | 0,003 |
| " Protox.Man | g.0,038 |
| | n 0,176 |
| Phosphate of Alumina | 0,003 |
| Silicic Acid | 0,387 |

Vichy, Grande Grille.

ALKALINE SPRINGS IN FRANCE.

The same degree of celebrity that the Karlsbad waters possess in Germany, Bohemia, Russia, &c., is enjoyed by the Vichy Springs in Western Europe. These medicinal waters contain among their chief solid components the carbonates and sulphates of soda, chlorid of sodium, besides a quantity of free carbonic acid.

Uses. — They act extremely solvent, especially on the kidneys and the organs of digestion; they have obtained an excellent reputation among hypochondriacs in France, and have from this reason, often been compared to

the Karlsbad Springs.

In reference to their composition, however, there is an esssential difference between both, the Vichy Springs being far richer in carbonate of soda, but more deficient in sulphate of soda than those of Karlsbad.

Directions. — Take 1 pint daily, increasing the dose until several stools occur daily.

Vichn, Grande Grille. (Bauer.)

| Carbonate of Soda | 29,194 |
|-----------------------|--------|
| Sulphate " | 0,904 |
| Chlorid of Sodium | 4,445 |
| Carbonate of Lime | 1,9277 |
| " Magnesia | 0,271 |
| Phosphate of Soda | 0,0324 |
| Sulphate of Potta-sa | 1,567 |
| Carbonate of Strontia | 0,0178 |
| " Ammonia | 0,036 |
| Bromid of Sodium | 00,010 |
| Iodid " | 0,0002 |

Haller Jodquelle.

These springs are located in the Traunkreis, Superior Austria, 1260 feet above the level of the sea, and have been renowned for more than 1000 years for their curative powers, especially against wens, &c.

Uses. — In all disorders of the lymphatic and glandular systems, in tumors consequent upon syphilitic affections, constipation, want of appetite, hemorrhoidal difficulties, hypochondria, hysterics, morbid irregularities of menstruation, chronic cutaneous eruptions, superannuated ul-

cers, obstinate gouty or rheumatic or paralytic affections, these waters produce extremely beneficial results, — thanks to their percentage of iodine and lithium.

Counter-indications. — Great debility of the stomach and intestines, diarrhetic disposition, active congestive disposition, suppuration of vital parts, hectic fever, consumptive disposition.

Directions. — The great proportion of iodine and lithium contained by these waters, renders some precaution in their use advisable; therefore it is well to commence with a few glassfuls only, and increase the dose gradually.

hall'er Jodquelle.

(Büchner.)

| 011.007 | - libe |
|-----------------------|--------|
| Sulphate of Soda | 0,352 |
| Chlorid of Ammonium | 0,044 |
| " Magnesium | 0,058 |
| " Sodium. 10 | 06,721 |
| Potassium | 0,058 |
| " Calcium | 2,995 |
| Carbonate of Magnesia | 0,176 |
| " Lime | 031 |
| " Protoxid Iron | 0,066 |
| Iod id of Magnesium | 0,367 |
| Bromid " | 0,449 |
| Silicie Acid | 0,086 |
| | |

Adelheids-Quelle.

These springs, situated in the southern part of Bavaria, were named after the Electress Adelheid of Bavaria, in the year 1659, and have since then been successfully employed against sterility. Among their constituent elements a large proportion of chlorid of sodium, bromine and iodine, as well as carbureted hydrogen is prevalent.

Uses. — These waters stimulate the appetite and the urinary system, they act as an aperient generally, and specifically as a solvent, on the lymphatic and glandular systems. They are recommended by eminent authorities for scrofulous tumors and indurations, especially for wens, scrofulous inflammations and ulcerations of the eyes, difficulties of digestion, obstructions of the liver and aortal system, hemorrhoids, hypochondria, melancholy, muculent disorders and morbid secretions of the respiratory, digestive, urinary and genital organs, gonorrhea, gravel, dropsical obstructions and indurations.

Directions. - Begin by taking 1 pint daily,

and increase the dose gradually.

| Adelheids = Auelle. | (Fuchs.) |
|---------------------|----------|
| Iodid of Sodium | 0,912 |
| Bromid " | 0,300 |
| Chlorid " | 36,899 |
| Carbonate of Soda | 4,257 |
| " Lime | 0,504 |
| " Magnesia | 0,230 |
| Silicic Acid | 0,122 |
| | |

Emser Kesselbrunnen und Kraehnchen.

MINERAL SPRINGS IN THE DUCHY OF NASSAU, GERMANY.

These waters belong to the earthy alkaline order, and act specifically on the lungs and the uterine system. They are generally to be employed in those cases, where the Karlsbad waters would be applicable, were it not for the strength of the latter, which may be injurious in some instances. The difference between the Kesselbrunnen and the Kræhnchen consists in the fact of the former being better adapted for sanguine temperaments, owing to its containing less free carbonic acid than the other. The former has less of an aperient action, acts somewhat depressing on the arterial system, and is particularly adapted for diseases of the respiratory organs; the latter, being more of a stimulant, solvent and aperient character, is not commendable for pectoral affections.

Uses.—These waters have attained their celebrity chiefly through their potent action against female sterility. Morover, they are of signal service in cases of irregularities of the menses, and mucous excretions, resulting from debilitation. Diseases of the lungs and respiratory organs, tuberculosis, the first stages of phthisis pituitosa, tracheal consumption and chronic inflammations of thelarynx, hoarseness, difficulties of articulation, &c. Obstructions and muculent disorders of the intestines, diseases of the nervous system. Chronic cutaneous diseases, tetter, ulcers, rheumatism, gout.

Counter-indications.—In decided cases of hectic fever and in the developed stages of purulent consumption, these waters should not be used.

Directions. — They should be taken in the morning, fasting, in quantities from 1 pint to 1 quart, at a slightly elevated temperature. Persons afflicted with diseases of the chest, may take them together with goats' or asses' milk. Sanguine persons of a congestive diposition may partake of a few bottles of magnesia-water, before commencing the regular curative routine. In cases of sterility the waters may also be employed in the form of vaginal injections. These springs being naturally warm, attention should be paid to the rules prescribed on that subject.

| Emfer Krähnchen. Cr | nser Ressell | frunnen. |
|----------------------|--------------|----------------|
| (Struve.) | (Struve |)montoning |
| Sulphate of Potassa | 0,592 | 0,540 |
| " Soda | 0,121 | ह स्त्रामानित् |
| Chlorid of Sodium | 7,797 | 7,634 |
| Carbonate of Soda | 9,712 | 10,750 |
| " Lithia | 0,016 | 481 64 81 |
| " Magnesia | 0,788 | 0,788 |
| " Lime | 1,140 | 1,140 |
| " Strontia | 0,010 | 0,010 |
| " Baryta | 0,062 | 0,003 |
| " Protoxid of Iron | 0,016 | 0,026 |
| Phosphate of Alumina | 0,0018 | 0,0018 |
| Fluorid of Calcium | 0,0019 | 0,0019 |
| Silicic Acid | 0,414 | 0,414 |
| Temp. 24 R. | Temp. | 37 R. |

Kissinger Ragoczy-Brunnen.

CHALYBEATE SPRINGS IN BAVARIA.

These waters—thanks to their large percentage of chlorid of sodium, carbonate of iron and carbonic acid—form one of the most potent chalybeate remedial agencies.

They are considerably richer than Congresswater, and, notwithstanding their richness in chlorid of sodium, are less irritating to the

stomach and digestion than the latter.

Uses. - The Rakoczy waters are employed against accumulations of phlegm in the digestive organs, want of appetite and constipation. Abdominal obstructions, hemorrhoidal diffculties. Anomalous menstruation, fluor albus or "whites", hysterics, chronic nervous disorders, nervous headache. Obstinate rheumatic and arthritical affections. Chronic cutaneous diseases, tetter and similar cutaneous eruptions, obstinate ulcers. Debility of the epidermis, as manifested in morbidly profuse perspiration, extreme sensitiveness to changes of temperature, and a morbid liability to take cold. Particularly beneficial effects are obtained from these waters in cases of plethora and corpulence. Glandular tumors and indurations, resulting from scrofula or external causes. Rigidity and contractions of joints resulting from gout. Diseases of the urinary organs, blennorrhea, helporrhoidal and spasmodic affections of the bladder and kidneys, gravel and epilepsy.

Directions. — Take 1—2 pints daily As to

diet, I refer to the general rules.

Kiffinger Rakoczy.

(Kastner.)

| Carbonate of | Soda | 0,820 |
|---------------|-------------|---------|
| | ithia | 0,002 |
| L | ime | 3,550 |
| St St | trontia | 0,003 |
| " M | agnesia | 2,500 |
| " P | rotox. Iron | 0,680 |
| and a second | " Mangar | 1.0,003 |
| Sulphate of S | oda | 2,000 |
| | Lime | 2,500 |
| Phosphate of | Soda | 0,170 |
| Silicic Acid | | 2,250 |
| Alumina | | 0,180 |
| Chlorid of So | dium | 62,050 |
| " Lit | hium | 0,025 |
| An | nmoninm | 00,50 |
| Ma | gnesium | 6,850 |
| Bromid | " Sheinio | 0,700 |
| Carbonic Acid | l Gas | 26,00 |
| | | |

Pyrmonter Hauptbrunnen.

SALINE SPRINGS IN THE PRINCIPALITY OF WALDECK, GERMANY.

These are the richest of chalybeate waters in iron and carbonic acid; they exercise an extremely agreeable and salutary influence on the stomach and are easy of digestion.

Uses. — The Pyrmont waters are applicable for general debility, consequent upon exhausting and lengthened diseases or excessive physical or mental exertions, hemorrhage, frequent confinements, venereal excesses; wherefore they form an excellent invigorating agency for debility of the genital and urinary organs (strictures, stranguria, inflammations, affections of the bladder, secondary effects of gonorrhea), difficulties and irregularities of menstruation, if superinduced by chlorosis or want of vitality in the blood, leucorrhea, sterility and abortive disposition Moreover, they are an excellent remedy for debility of the stomach, dysentery, want of appetite, dyspepsia, flatulence, phlcgm, chronic diarrhea, hypochondria, hysterics, intestine cramps, worms, gout and rheumatism.

Counter-indications. — The use of these waters is to be discountenanced in cases of plethora and congestiveness, inflammatory fevers, chronic pulmonary diseases, especially in cases of inflammatory tuberculosity, in pregnancy accompanied by a sanguine disposition. In diseases of the urinary organs caused by incipient syphilis there is danger of inflammatory symptoms.

Directions.— The internal use of these waters is to continue for 4—6 weeks, commencing with 1 pint in the morning and gradually increasing the dose. If they should not be liked cold, they may be taken warm, or they may be rendered less excitant by being mixed with milk. If constipation should occur during their use, clysters

should be administered; or the first tumblerful may be taken with 2—3 teaspoonfuls of sulphate of magnesia.

Pormonter Hauptbrunnen.

(Struve.)

| Sulphate of Potassa | 0,042 |
|-----------------------|-------|
| " Soda | 2,145 |
| " Magnesia | 2,697 |
| " Lime | 7,221 |
| " Lithia | 0,009 |
| " Strontia | 0,020 |
| Chlorid of Magnesium | 1,126 |
| Carbonate of Magnesia | 0,323 |
| " Lime | 5,988 |
| " Protox. Man. | |
| " Iron | 0,490 |
| Phosphate of Alumina | 0,014 |
| Silicic Acid | 0,496 |
| Carbonic Acid Gas | 1,680 |
| Carbonio ricia das | 1,000 |

Eger Franzens-Brunnen.

CHALYBEATE SPRINGS IN BOHEMIA, AUSTRIA.

These basic saline waters are eminent for their richness in carbonic acid, iron and saline solvents; they act as an invigorator and vitalizer on the stomach and intestines, they stimulate the appetite, neutralize acidulous tendencies, they act favorably on the excretal and urinary functions, and as stimulants and excitants on the arterial system, and are highly recommended for those conditions of the system induced by a defective mental and physical training, or by ve-

nereal excesses, masturbation, &c. Moreover, for nervous disorders, palsy, if unattended by arterial congestions, nervous trembling, hysterical cramps, nervous headache, St. Vitus dance; hemorrhoids, expansion of the milt or liver, anomalous bilious secretions, jaundice. Wherefore they cannot be too highly commended to persons of sedentary habits. Also for diseases of the uterine system, fluor albus, irregular menses, abortive disposition, if resulting from debility. Chronic diseases of the kidneys and bladder, gravel, inflammatory and hemorrhoidal affections of the bladder, urinary strictures

Counter indications. — These waters should not be used in cases of plethoric, congestive and hemorrhaginal dispositions, fevers, diseases of the heart and large blood-vessels, considerable

glandular indurations, scirrhosity.

Directions. — They are to be taken in the morning, while fasting, warm or cold, with or without the addition of milk, according to the disposition of the stomach.

| Eger Franzensbrunnen. | (Berzeliu |
|-----------------------|-----------|
| Sulphate of Soda | 24,504 |
| Chlorid of Sodium | 9,230 |
| Carbonate of Soda | 5,188 |
| Lithia | 0,037 |
| Magnesia | 0,672 |
| Lime Lime | 1,800 |
| Besh bu"meta Strontia | 0,003 |
| W. Duston M. | 0019 |

Carbonate Protox. Iron 0,235
Phosphate of Lime 0,023
Alumina 0,012
Silicic Acid 0.473

Seidschuetzer und Puellnaer Bitterwasser.

MINERAL SPRINGS IN BOHEMIA, AUSTRIA.

The former of these waters belongs to the Sulphate of Magnesia class, the latter being one of the Sulphate of Soda class. Both exercise a cooling, depressing action; they act as purificators, solvents and aperients on the stomach and intestines. They stimulate the secretions and excretions of the liver and the uterine system. The waters of Seidschuetz are milder in their effects than those of Puellna, wherefore the latter are preferable in cases where it is desirable to exercise a more concentrated and penetrating action on the organism.

Uses. — These waters are to be employed for all diseases originating in a plethoric disposition; for cerebral and pecteral congestions and their consequences, — headaches, imaginary noises, ocular scintillations, palpitations of the heart, pectoral oppressions, abdominal obstructions and liver disorders, consequent upon phlegm and plethora. Constipation and inanity of the intestines. Chronic cutaneous diseases resulting from arterial congestions or abdominal obstructions. Tumors, indurations and inflammatory fevers.

Counter-indications. — Feeble, nervous persons, especially those suffering from dyspepsia

and intestine debility, should not use these waters, at least not in considerable quantities.

Directions. — According to the requirements of the case, these waters may be used alone at discretion or in combination with others.

| Seidschützer Bitterwasser | püll | Inacr Bitterwasser |
|---------------------------|------------|--------------------|
| (Berzelius.) | r modeli 3 | (Struve.) |
| Sulphate of Potassa | 4096 | 4,800 |
| " Soda | 46,801 | 123,80 |
| " Magnesia | 84,166 | 93,086 |
| " Lime | 10,077 | 2,600 |
| Chlorid of Magnesium | 2,169 | 19,666 |
| Carbonate " | 4,985 | 6,406 |
| " Manganese | 10100 | |
| " Manganese " Protox. Ir. | 50,102 | |
| " Lime | | 0,770 |
| Phosphate " | | 0,003 |
| Iodid of Magnesium | 0,016 | |
| Nitrate of Magnesia | 25,171 | |
| Silicic acid | 0,036 | 0,176 |

Selterser-Brunnen.

MINERAL SPRINGS IN THE DUCHY OF NASSAU, GERMANY.

These waters are of an acidulous muriaticosaline composition; their action is of a cooling and stimulating nature; they act as stimulants on all secretions and excretions, on the functions of the bowels, and specifically on the lungs.

Uses. — Pre-eminently used for chronic pulmonary diseases and disorders of the mucous membrane of the air passages; they regularize secretions of purulent consumption; they are use-

ful for muculosities, obstinate coughs, pectoral catarrhs of old standing, in all kinds of asthma, and diseases of the kidneys and bladder. Abdominal obstructions. Their action on the arterial system is of a quiescent nature; while their stimulating effect on the urinary organs is of great value in dropsical afflictions.

Directions. — Take 1 pint — 1 quart daily, with or without milk, or with expressed herbal juices, as the occasion may require; for consumption they are to be accompanied by Icelandmoss jelly. Added to Rhine-wine and sugar they form an agreeable cooling summer beverage,

| Selterser Brunnen. (Bis | schoff.) |
|-------------------------|----------|
| Sulphate of Soda | 0,248 |
| Chlorid of Sodium | 16,285 |
| Carbonate of Soda | 5,855 |
| " Magnesia | 1,595 |
| " Lime | 1,867 |
| " Protox. Iron | 0,154 |
| Phosphate of Soda | 0,281 |
| Silicie Acid | 0,289 |
| Carbonic Acid Gas | 1.087 |

N.B. — Mineral waters, in order to be preserved for a length of time, should be placed with the bottles in either a horizontal or an inverted vertical position, and be kept at a low temperature.

Clean mineral water bottles, provided with my imprint, if delivered at the factory free of expense, will be paid for at the rate of 50 ets. per dozen.

Prices of the above Waters.

Boxes containing 2 doz pint-bottles \$2.00 p. dz,
" " quart \$2.75 ,,

In New York and vicinity any quantity will

be delivered at discretion.

The above prices are fixed at such a low standard, that the waters are placed within the reach of all; but the very fact of their cheapness does not enable me to expend thousands of dollars annually in advertising, which means is so frequently resorted to for the purpose of making an article saleable, no matter whether it be good, bad, or indifferent. I disdain also, to pay for editorial puffs, "medical" certificates and copied analyses. In Russia, England, Germany, and France. artificial mineral waters have achieved a reputation and gained popular favor, even in the immediate vicinity of the natural springs, owing to their constant sparkling freshness and the invariable permanence of their composition; ought this not to be the case, even to a greater extent, in the United States, where the imported natural waters, the bottling of which does not commence before May, arrive at such a late period, that the greater portion has to be retained for the subsequent season, during which time they lose all their carbonic acid and pass into a state of loathsome putrefaction.

New York, April, 1863.

F. H. HECKING 370 Pearl st.



